

ABSTRACT

The object of the present invention is to provide a feedstock liquid, from which fuel kernels with good quality can be produced, and a method of preparing the feedstock liquid. The present invention provides a feedstock liquid with a viscosity from 4.0×10^{-2} to 6.5×10^{-2} Pa·s at 15°C, for the production of ammonium diuranate particles. The present invention also provides a method of preparing a feedstock liquid used for the production of ammonium diuranate particles, which includes mixing a uranyl nitrate solution and tetrahydrofurfuryl alcohol to produce a uranyl nitrate mixture, dissolving polyvinyl alcohol in water to produce an aqueous polyvinyl alcohol solution, mixing the aqueous polyvinyl alcohol solution with tetrahydrofurfuryl alcohol to produce a polyvinyl alcohol solution, and mixing the uranyl nitrate mixture with the polyvinyl alcohol solution.